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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,962	12/27/2000	Narumi Umeda	201261US2	3199

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EXAMINER

LEE, JOHN J

ART UNIT PAPER NUMBER

2684

DATE MAILED: 02/26/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,962

Applicant(s)

UMEDA ET AL.

Examiner

JOHN J LEE

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6.8.9</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 2, 11, 13, and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hakkinen (US Patent number 5,839,056) in view of Walton et al. (US Patent number 6,542,488).

Regarding **claim 1**, Hakkinen discloses that a mobile communication control system (Fig. 1) including at least one mobile station (MS1-4 in Fig. 1) and at least one base station (1 in Fig. 1) (Fig. 1 and column 4, lines 20 – 31). Hakkinen teaches that a first part measuring traffic of radio channels (traffic load) in one or both of said at least one mobile station (MS1-4 in Fig. 1) and said at least one base station (1 in Fig. 1) (Fig. 2 and column 2, lines 43 – column 3, lines 17). Hakkinen teaches that a second part measuring a communications quality of radio channels in use (Fig. 2 and column 2, lines 43 – column 3, lines 17). Hakkinen teaches that a third part determining a transmit power on a transmitting side (abstract, Fig. 2, and column 2, lines 43 – column 3, lines 17 where teaches base control site measures traffic load and channel quality for received signals and calculates and compares based on those reference values for determining the transmission power of radio transmitter).

Hakkinen does not specifically disclose the limitation "determining an information transmission bit rate on the basis of the traffic of the radio channels in use and information as to whether the transmit power in use transmitting side has reached a maximum transmit power". However, Walton discloses the limitation "determining an information transmission bit rate on the basis of the traffic of the radio channels in use and information as to whether the transmit power in use transmitting side has reached a maximum transmit power" (column 19, lines 33 – column 20, lines 31 and Fig. 14, 15 where teaches the base station determines bit rate based on received signals (traffic channels) and if the received power level is greater than or less than the desired power level (maximum power) for request data rate, then the base station calculates the amount of adjustment needed (reaching the maximum power) to make the power level appropriate). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Hakkinen system as taught by Walton. The motivation does so would be to achieve an efficient power control in base control system.

Regarding **claim 2**, Hakkinen discloses that the transmit power on the transmitting side is retained in case where the traffic of communications quality of the radio channels in use is degraded (column 1, lines 51 – column 2, lines 40 and Fig. 1).

Regarding **claim 11**, Hakkinen discloses that the traffic of the radio channels in use is recognized to be high when the received level of the radio channels in use is higher than a predetermined threshold level (column 2, lines 43 – column 3, lines 24 and Fig. 1).

Regarding **claim 13**, Hakkinen and Walton disclose the all the limitation as in claim 1. Furthermore, Hakkinen further discloses that the communications quality of the

radio channels in use is determined to be degraded when a received CIR (Carrier Interference Ratio) of a signal transmitted over a radio channel is lower than a predetermined received CIR (column 2, lines 43 – column 3, lines 60 and Fig. 1).

Regarding **claim 17**, Hakkinen and Walton disclose the all the limitation as in claim 1. Furthermore, Hakkinen further discloses that a received level measuring circuit (7 in Fig. 2) measuring a received level of radio channels in use in order to recognize a traffic of the radio channels (column 4, lines 53 – column 5, lines 24, Fig. 2, and column 2, lines 43 – column 3, lines 17). Hakkinen teaches that a received Carrier Interference Ratio measuring circuit (8 in Fig. 2) measuring a received CIR of an associated one of the radio channels in order to measure a communications quality of each of the radio channels (column 4, lines 53 – column 5, lines 24, Fig. 2, and column 2, lines 43 – column 3, lines 17). A base station control unit (9 in Fig. 2) determines a transmit power (column 2, lines 43 – column 3, lines 17 and Fig. 2).

Regarding **claim 18**, Hakkinen and Walton disclose the all the limitation as in claims 1 and 13.

Regarding **claim 19**, Hakkinen and Walton disclose the all the limitation as in claims 1 and 17.

Regarding **claim 20**, Hakkinen and Walton disclose the all the limitation as in claims 1 and 13.

3. **Claims 3-10, 12, and 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hakkinen in view of Walton and in further view of Olofsson et al. (US Patent number 6,668,159).

Regarding **claim 3**, Hakkinen and Walton do not specifically disclose the limitation “decreasing the information transmission bit rate to thereby improve the communications quality, wherein decreases the information transmission bit rate when the traffic of the radio channels in use is high and the communications quality of the radio channels in use is degraded, whereby a given communications quality can be ensured”. However, Olofsson discloses the limitation “decreasing the information transmission bit rate to thereby improve the communications quality, wherein decreases the information transmission bit rate when the traffic of the radio channels in use is high and the communications quality of the radio channels in use is degraded, whereby a given communications quality can be ensured” (column 5, lines 27 – column 6, lines 20 and Fig. 3, 5 where teaches setting the bit rate based on measuring traffic load and channel link quality, for example when high traffic load and low channel link quality situation, setting lower than maximal bit rate). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Hakkinen and Walton systems as taught by Olofsson. The motivation does so would be to achieve an efficient power control for increasing traffic capacity and channel quality in wireless communication system.

Regarding **claim 4**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claims 1 and 3.

Regarding **claim 5**, Hakkinen discloses that the fourth part increases a spreading gain in CDMA (column 2, lines 63 – column 3, lines 17 and Fig. 1).

Regarding **claim 6**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claim 5.

Regarding **claims 7 and 8**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claims 1 and 3. Hakkinen further discloses that transmits an identical information bit a plurality of times, a received signal being reproduced from identical information bits separately received (column 4, lines 19 – 52 and Fig. 1).

Regarding **claims 9 and 10**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claims 1 and 7.

Regarding **claim 12**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claims 1 and 11.

Regarding **claims 14-16**, Hakkinen, Walton, and Olofsson disclose the all the limitation as in claims 1 and 13.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yasaki (US Patent number 6,421,370) discloses that Spectrum Spreading System.

Esteves et al. (US Patent number 6,687,510) discloses Power Allocation on a Reverse Link Power Control Channel of a Communication System.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-6606 (for informal or draft communications, please label
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is (703) 306-5936. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Aung Maung**, can be reached on (703) 308-7745. Any inquiry of a general nature or

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relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L.
February 12, 2004

John J Lee

Nick Cosar
Primary Examiner